



# Quality assurance of particle detectors

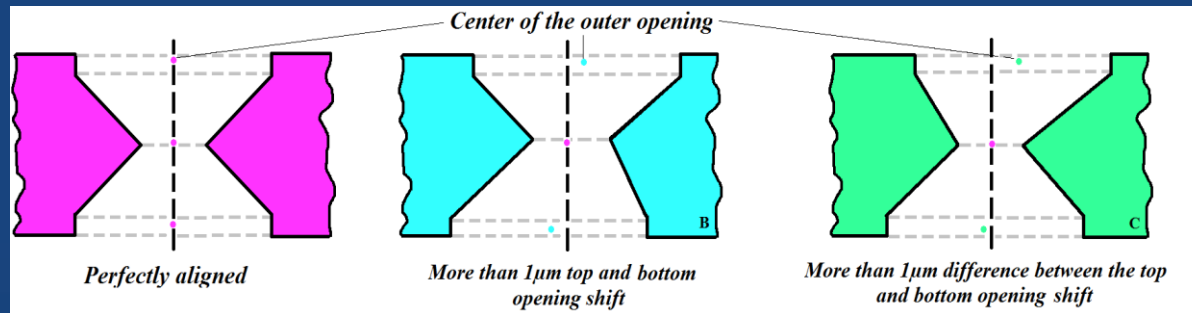
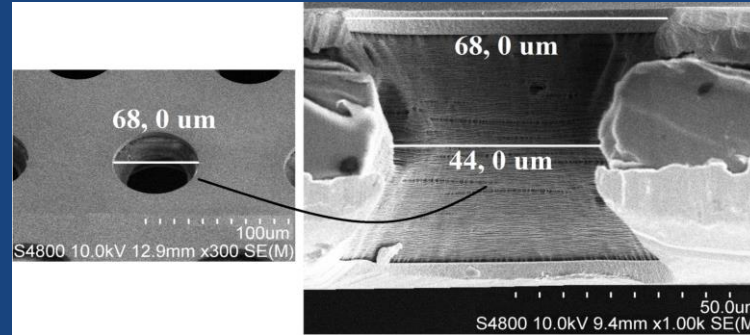
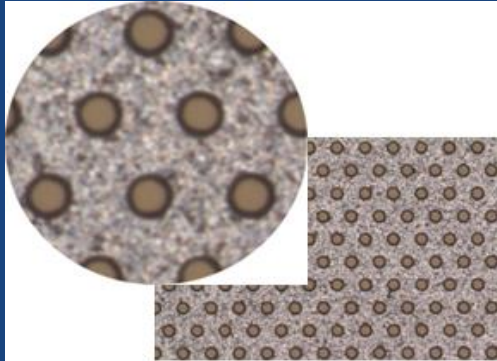
Visual inspection, electrical characterization and chemical composition analysis

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# Gas Electron Multiplier (GEM) Detector



Visual quality control of the GEM foil hole parameters.

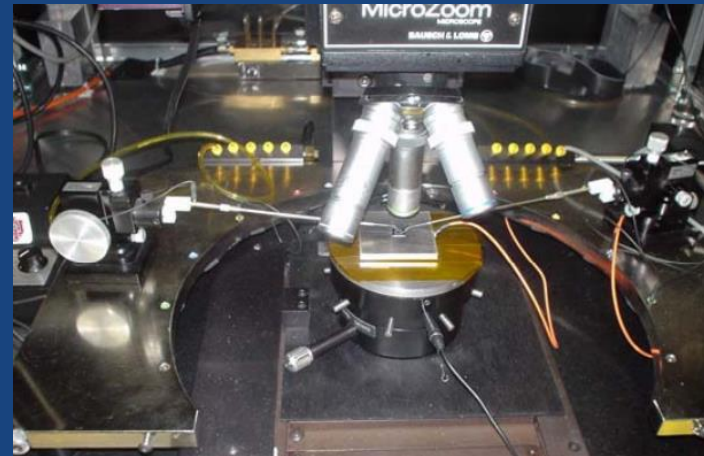
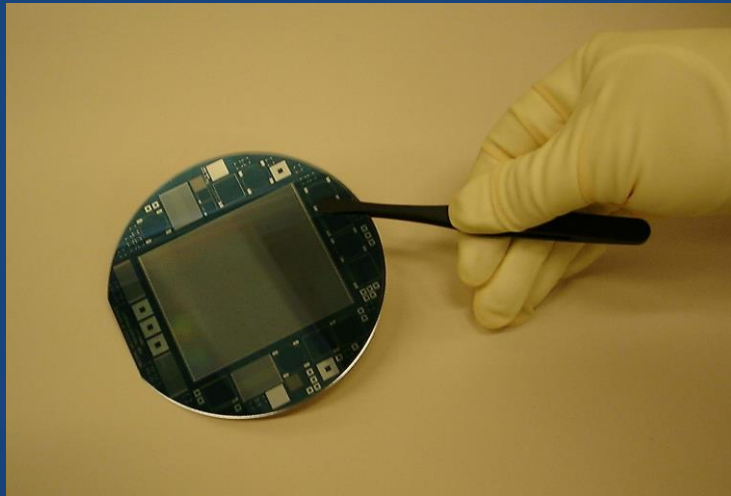
Check for defects: missing holes; enlarged holes; dirt in holes; etching defects.

GEM detector performance simulation.

The shape and size of GEM foil holes does effect the detector performance.



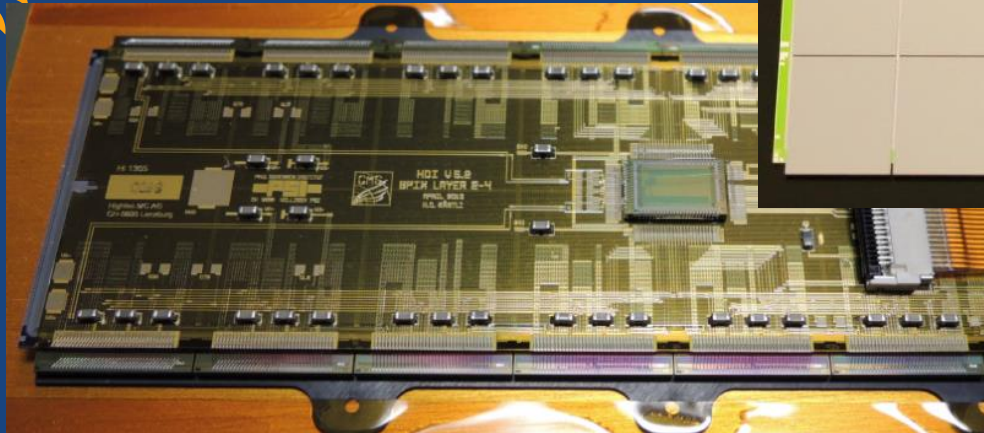
# Electrical Characterization of Silicon Detectors



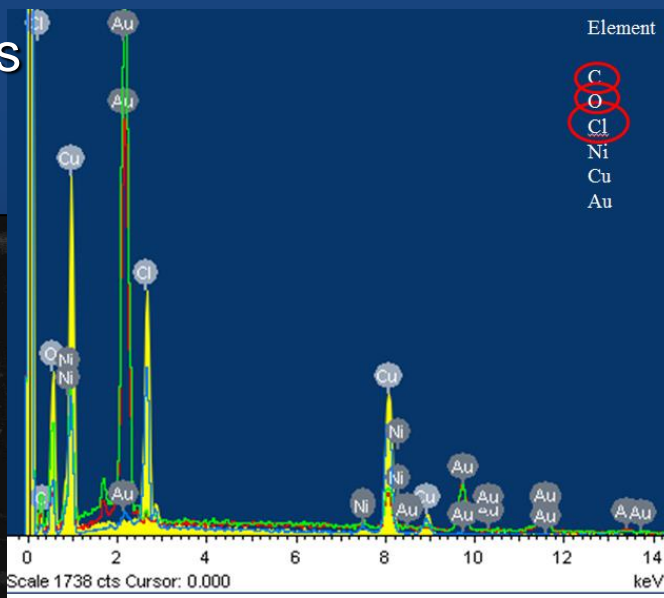
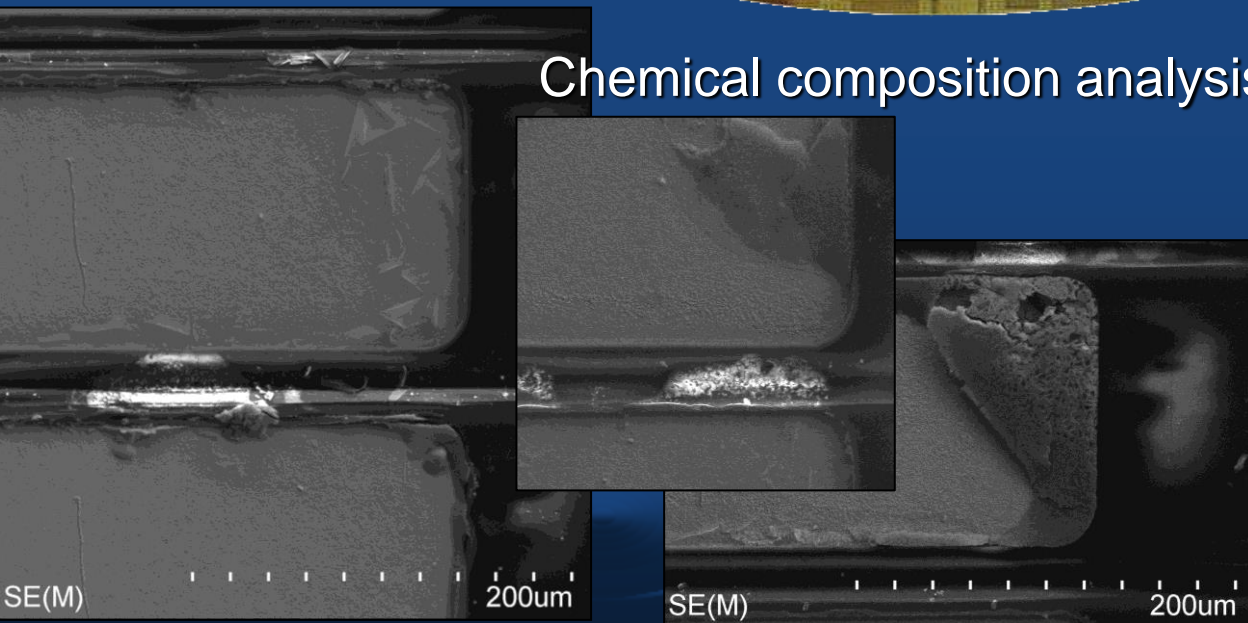
Current voltage (IV) and Capacitance voltage (CV)  
measurements



# High-Density Interconnection (HDI)



Chemical composition analysis





Thank you for your Attention